



# The Massachusetts Bay Transportation Authority

## Corrective Action Plan (CAP)

**FTA 23-10-MBTA-  
CAT2-1**

### BACKGROUND

**Overview:** FTA issues Special Directive 22-10 to require the Massachusetts Bay Transportation Authority (MBTA) to address findings documented in FTA's Safety Management Inspection (SMI) report released on August 31, 2022. Conducted between April 14 and June 30, 2022, FTA's SMI reviewed the MBTA rail transit system management, operations, and maintenance programs. This Special Directive identifies six findings requiring action that the MBTA must take to enhance and expedite implementation of the agency's SMS, including the development of procedures, safety management training, safety risk assessment, and safety assurance activities to build the organization's capability to identify safety concerns and to prioritize action to mitigate safety risk.

### PURPOSE

This Corrective Action Plan has been developed to address **Category 2 – Prioritization of safety management information**

#### FTA Finding

##### Prioritization of safety management information

- Finding 1: MBTA has not ensured that the necessary structures are in place to support effective implementation and operation of its SMS.

#### FTA Required Action

- 1.A: MBTA must conduct a critical and comprehensive review of its entire SMS planning, implementation, and operational processes and activities to address the gaps discussed in this finding.
- 1.B: MBTA must update its SMS Implementation Plan to reflect the results of this review, including defined actions, timeframes, responsibilities, and expected outcomes.

### ANALYSIS AND RECOMMENDATIONS

#### Analysis

- MBTA has an existing multi-year SMS Implementation Plan ("the Plan") that was submitted and approved by the Department of Public Utilities ("DPU"). The Plan provides a roadmap documenting the activities MBTA will perform related to each of the three (3) phases of the implementation process. The Plan is reviewed and updated at the end of each phase to ensure completion, with proper documentation, of the current phase and to evaluate the appropriateness of the actions identified in the next phase. The MBTA is currently in Phase 2 of the Plan.
- SMS training materials have been developed and rolled out to the entire MBTA and outline roles, responsibilities, and key SMS processes for affected groups within the MBTA.
- MBTA has several methods for capturing and monitoring safety risks, yet no centralized reporting and tracking system.

#### Recommendations

- MBTA will assess its existing safety programs and processes to ensure MBTA executives are provided with prioritized and actionable safety information for safety risk resource allocation decision-making through an effective safety management governance structure. The MBTA will also assess its SMS Implementation and Project Plans to identify and address gaps in the implementation processes.
- MBTA will update its existing SMS Implementation and Project Plans based on the gap analysis findings.
- MBTA will review and revise its existing SMS training to improve understanding and retention of SMS principles, processes, and accountabilities.
- MBTA will implement standardized methodology and a centralized system for the documentation and tracking of safety risks across the organization.



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### ACTION PLAN

**Description:** MBTA has onboarded a consulting firm to assist with implementation of SD 22-10 actionable items. Through a formalized gap analysis process, MBTA will perform a comprehensive review of the existing SMS Transit Safety Plan, SMS Implementation Plan, and SMS Implementation Project Plan to develop explicit and formal provisions to ensure an effective safety management governance structure. The review will result in the development of ongoing status monitoring and reporting, improvement of actionable and prioritized safety information (Finding 2), and incorporation of SMS safety management processes at the executive level. MBTA will update SMS accountability descriptions, and coordination amongst all relevant positions to ensure effective SMS operation and process activities. Findings and action items from the gap analysis will be incorporated into the above-mentioned plans. MBTA's responses to Findings 2 through 6 of Special Directive 22-10 also deal with implementation of specific processes, procedures, and support tools such as Origami software to address specific SMS needs.

MBTA will ensure trending, assessment, and monitoring of hazards and safety risks are centralized to prevent duplicative efforts.

To improve SMS training effectiveness, MBTA will coordinate with the consultant to review the current training regarding key SMS processes for involved personnel and revise it to ensure all employees fully understand SMS principles, their role with the SMS, and their accountabilities.

### PLAN STRUCTURE

| # | Actionable Items             | Description  | Responsible Party <sup>1</sup>                                   | Est Start <sup>2</sup> | Est End <sup>3</sup> |
|---|------------------------------|--|--|------------------------|----------------------|
| 1 | Establish CAP Advisory Group | Establish an advisory group of internal stakeholders to review and guide implementation of the corrective action plan.   | QCOO: Katie Choe<br>Safety: Ronald Ester                         | 10/17/22               | 10/30/22 [A]         |
| 2 | Strategic Planning Session   | Conduct a strategic planning session for SD 22-10 Finding 1 CAP implementation with the advisory group identified in Actionable Item #1.   | QCOO: Katie Choe<br>Safety: Ronald Ester<br>GM: Lynsey Heffernan | 11/1/22                | 12/19/22 [A]         |
| 3 | Procure Consulting Services  | Issue RFP or Task Order for consulting services to evaluate the Transit Safety Plan, SMS Implementation Plan, and SMS Implementation Project Plan in relation to safety management governance structure and incorporate changes into the relevant plan(s).   | QCOO: Katie Choe<br>Safety: Michael Catsos                       | 11/16/22               | 12/22/22 [A]         |
| 4 | Onboard Consultant           | Onboard selected consultant.   | QCOO: Katie Choe   | 12/23/22               | 2/17/23 [A]          |
| 5 | Review SMS Documents         | Complete inventory of existing documents, processes, procedures, and tools including plans, programs, promotional materials, meeting agendas, tracking templates, and trainings. Prepare gap analysis tool comparing inventory with SMS requirements as stated in Transit Safety Plan, SMS Implementation Plan, and federal and state regulations. Perform a comprehensive review and gap analysis to identify actionable steps requisite to the successful implementation of the SMS. | Safety: Michael Catsos   | 2/21/23                | 4/25/23 [A]          |

<sup>1</sup> In the event of personnel or departmental changes, responsibilities for actionable items shall transfer to the new leadership.

<sup>2</sup> Est Start – Estimated Start Date

<sup>3</sup> Est End Estimated Completion Date





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|    |   |   |   |          |          |
|----|---|---|---|----------|----------|
| 6  | Establish an SMS Steering Committee                 | Identify stakeholders to comprise a steering committee that guides SMS implementation and oversees selection of an SMS Lead.  | QCOO<br>Safety                                | 9/1/23   | 9/15/23  |
| 7  | Identify an SMS Lead                                | Advertise and select an opening for a dedicated individual to lead SMS gap analysis and manage implementation of the MBTA's SMS. A contingency plan for an interim SMS lead (consultant, detailed staff, etc.) will be presented if the SMS Lead role is not filled by target date.   | Safety<br>HR                                  | 9/1/23   | 10/18/23 |
| 8  | Develop CAP Status Monitoring and Reporting         | Develop status monitoring and reporting within the SMS safety management processes that provide project management controls to support resource allocation decision-making. This is intended to be an ongoing, short-term approach during this CAP. Reporting for SMS will be performed under CAP 2R.   | Safety: SMS Lead<br>Operations                | 9/15/23  | 11/3/23  |
| 9  | Prepare for a Refocused Gap Analysis                | Develop a tool to standardize approach to SMS gap analysis, leveraging FTA's SMS guidance and existing gap analysis checklists readily available, using the inventory from AI 5 to inform the development of the tool.  | Safety: SMS Lead<br>OPMI<br>ITD               | 11/6/23  | 11/17/23 |
| 10 | Perform a Refocused SMS Gap Analysis                | Using the inventory performed under AI 5 as a baseline, perform an SMS gap analysis covering major organizational structures and processes within the SMS. Explicitly identify gaps between the analysis framework and MBTA's SMS. Development of the gap analysis will utilize the tool developed in AI 9, leverage FTA comments on – and both approval and disapproval of – prior iterations of deliverables and include meetings with representatives of groups that will be affected by implementation.<br>An assessment of resources (operationally and capital) will occur in coordination with SD 22-9 (Workforce Assessment).<br><b>Required Action 1A: Comprehensive SMS Planning Review</b> | Safety: SMS Lead<br>OPMI<br>Operations<br>ITD | 11/20/23 | 2/2/24   |
| 11 | Apportion Actions from outcomes of SMS Gap Analysis | Perform, with involvement of the SMS Steering Committee, a comprehensive review of AI 10 with focus on identifying action items that can be assigned to specific departments and individuals.   | Safety: SMS Lead<br>OPMI<br>Operations        | 2/5/24   | 3/1/24   |



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|    |  |   |                                  |         |         |
|----|--|---|----------------------------------|---------|---------|
| 12 | Revise SMS Project Planning for Safety Event Investigations and ESRP | Specify responsible individuals, timelines, and expected outcomes in the SMS Implementation Project Plan for each SMS actionable step identified in the gap analysis for safety event investigations and ESRP. Update SMS Implementation Plan for these two processes. Require review, signature, and resourcing by General Manager. Revise SMS Implementation Plan for these two processes to clarify authorities, accountabilities, and responsibilities of MBTA personnel involved in managing and executing the plan. | Safety: SMS Lead                 | 3/4/24  | 4/4/24  |
| 13 | Revise SMS Project Planning for all other Processes                  | Complete all tasks identified in AI 12 for the remaining processes of the SMS Implementation Project Plan.  | Safety: SMS Lead                 | 4/5/24  | 5/9/24  |
| 14 | Update SMS Implementation and Project Plans                          | Revise the SMS Implementation Plan and SMS Implementation Project Plan per updates made in AIs 12 and 13 and obtain executive leadership approval of updated plans.<br><b>Required Action 1B: SMS Implementation Plan Update</b>  | Safety: SMS Lead                 | 5/10/24 | 6/7/24  |
| 15 | Issue Memo to Operating Managers                                     | Chief Safety Officer will issue a memo or other formal guidance to operating managers outlining their involvement in SMS implementation.  | Safety: CSO                      | 6/10/24 | 6/21/24 |
| 16 | Update SMS Trainings   | Perform a review of existing SMS training materials to ensure SMS principles and their accountabilities are defined. Revise and expand incorporated training assessments and prepare to collect / document learning outcomes from employees completing training.  | Safety: SMS Lead<br>L&D/Training | 6/24/24 | 8/15/24 |
| 17 | Reissue SMS Trainings  | Reassign all updated trainings to staff tasked with SMS responsibilities.   | Safety: SMS Lead<br>HR           | 8/16/24 | 9/6/24  |
| 18 | CAP Verification   | Evaluate actionable items/deliverables before submission to FTA to confirm there is reasonable evidence that the findings and this required action have been resolved, considering the scope and performance measures.  | QCOO<br>Safety                   | 3/20/24 | 11/4/24 |
| 19 | Develop Project Management Plan (PMP) & Integrated Schedule          | Develop and use a project management plan (PMP) and integrated schedule for comprehensive coordination and tracking.  | QCOO                             | 9/1/23  | 10/5/23 |

## COMPLETION DOCUMENTATION

### Performance Metrics

- Responsible individuals, timelines, and outcomes, including ongoing status monitoring and reporting, are specified in the appropriate plan(s)





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- Ongoing status monitoring and reporting, developed and prioritized actionable safety information, and SMS safety management processes are incorporated at the executive level
- Informed and improved resource allocation decisions
- Revised training on key SMS processes for involved personnel
- Transit Safety Plan, SMS Implementation Plan, and the SMS Implementation Project Plan are updated

### Verification

- Verification for ensuring completion of the required activities will include:
  - SMS implementation tasks have defined responsible individuals, timelines, and outcomes
  - SMS Lead role filled and integrated with work of SMS Steering Committee
  - Demonstrated understanding of SMS roles and responsibilities at all levels
  - SMS training materials are revised, and training is assigned to the appropriate personnel
  - Updated Transit Safety Plan, SMS Implementation Plan, and SMS Implementation Project Plan

### BUDGET/COST ESTIMATE

**Overview:** Costs for this corrective action plan include consulting services to support performance of the SMS gap analysis, a comprehensive review of the existing transit safety plan, SMS Implementation Plan, and SMS Implementation Project Plan, development of new training materials, and implementation of new training for the MBTA.

| Segment Code   | Cost Estimate (\$) |
|--|--------------------|
| Consulting services for plans and schedule reviews and updates | 200,000            |
| Development of new and revised virtual training materials      | 100,000            |
| New full-time MBTA position for SMS Lead                       | 160,000            |
| 30% Contingency  | 138,000            |
| <b>Total</b>   | <b>598,000</b>     |

### CORRECTIVE ACTION PLAN COMMITMENT

#### Responsible Parties

| Department <sup>4</sup> | Name  | E-mail     | Signature   |
|-------------------------|---|------------|---|
| Safety                  | Michael Catsos<br><i>Director of SMS and Safety Oversight</i> | [REDACTED] | <i>Michael Catsos</i><br>DocuSigned by:<br>F8538833750D44B... |
| Operations              | Erik Stoothoff<br><i>Acting Chief Operating Officer</i>       | [REDACTED] | <i>Erik Stoothoff</i><br>DocuSigned by:<br>420D662BD86D47B... |

<sup>4</sup> Offices designated as supporting roles provide subject matter expertise to responsible parties during action development and are not directly responsible for delivery of actionable items listed above.


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**CORRECTIVE ACTION PLAN COMMITMENT**
**Responsible Parties**

| <b>Department<sup>1</sup></b> | <b>Name</b>  | <b>E-mail</b> | <b>Signature</b>  |
|-------------------------------|--|---------------|---|
| Workforce                     | Ahmad Barnes<br><i>Chief Workforce Officer</i>   | [REDACTED]    | DocuSigned by:<br><i>Ahmad Barnes</i><br>C905D70689224D6...     |
| Finance                       | Mary Ann O'Hara<br><i>Chief Financial Officer</i>  | [REDACTED]    | DocuSigned by:<br><i>Mary Ann O'Hara</i><br>3F02AECAC6884B1...  |
| Information Technology        | John Glennon<br><i>Chief Information Officer</i>   | [REDACTED]    | DocuSigned by:<br><i>John R. Glennon</i><br>850151B235C34CF...  |
| Procurement                   | Jeff Cook<br><i>Chief Procurement &amp; Contract<br/>Administration Officer</i>            | [REDACTED]    | DocuSigned by:<br><i>Jeff Cook</i><br>68238EE50D624B0...        |
| General Manager's<br>Office   | Lynsey Heffernan<br><i>Assistant General Manager for Policy &amp;<br/>Transit Planning</i> | [REDACTED]    | DocuSigned by:<br><i>Lynsey Heffernan</i><br>6802249/BCF94B6... |

**Executive Leadership of Responsible Parties**

DocuSigned by:  
*Jeffrey D. Gonneville*  
30E468B71256444...

**Jeffrey D. Gonneville**  
MBTA Deputy General Manager

9/11/2023

Date

DocuSigned by:  
*David Panagore*  
161605A7F0528467...

**David Panagore**  
MBTA Chief Administrative Officer

9/8/2023

Date

DocuSigned by:  
*Meredith Sandberg*  
40E40D1132656097...

**Meredith Sandberg**  
MBTA Acting Chief of Quality, Compliance & Oversight

9/8/2023

Date



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**FTA 23-10-MBTA-**  
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DocuSigned by:

*Dennis Lytton*

ON BEHALF OF

9/8/2023

**Ronald Ester**

*MBTA Chief Safety Officer*

Date

DocuSigned by:

*Phillip Eng*

9/11/2023

**Phillip Eng**

*MBTA General Manager & CEO*

Date